Starting as a fuel refiner in Prosperous Universe.

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Basics

Primary export:

• STL Fuel (SF)

Secondary exports:

- FTL Fuel (FF)
- Galarite Rock (GAL)
- Boron Crystals (BOR)
- Sodium Borohydride (NAB)

Starter buildings:

- 2x Pioneer habitation (HB1)
- Fuel Refinery (REF)
- Extractor (EXT) The extractor is almost always better than the collector.

Essential Imports:

- Basic pioneer consumables (RAT, DW, OVE)
- Basic settler consumables (EXO, PT)
- Hydrogen gas (H)
- Ammonia gas (AMM)

Optional Imports:

- Luxury pioneer consumables (PWO, COF)
- Luxury settler consumables (REP, KOM)

Helium-3 Isotope (HE3)

Beginner traps:

- Avoid TS and recipes related to it.
- Avoid collecting H yourself. Always buy it from the CX.

Unlike other starting companies, your fuel refineries are settler level buildings which employ settlers to maximize their production rates. This makes the start slightly more complicated, but managing settlers is fairly easy. You just need a few more basic consumables (EXO and PT) and a settler habitation building. Working with settlers also makes this a good start to expand into more settler buildings like chemical plants. These buildings cost comparable amounts of prefabs to build as pioneer buildings.

Natural progression options are more limited, as there's only one building that your fuel experts apply to; the fuel refinery.

An extractor can be used to get Galarite Rock (GAL) and Boron Crystals (BOR).

A collector should only be used to get ammonia (AMM), and never used to get hydrogen (H).

A rig will not provide you with resources directly applicable to your starting company.

Choosing a starting region

Regions are in the recommended order for starting as a fuel refiner.

Hortus

Hortus is the second most populous region with the second largest market. It is also the furthest away from the main fuel production hub in Benten. Thus prices and demand for your SF will be the highest here of all possible starts. The region also has a very good planet for making SF on with a relatively low population compared to other planets in the region. Therefore demand for fuel refiners here is almost always very high.

Recommended starting planet: Boucher (has a GAL deposit)

Moria

Moria is the most populated region in the universe and has the largest market. Fuel refiners are traditionally in low numbers here and the region mostly relies on imports for fuel. Fuel prices are almost always high as a result. However this start is somewhat more complicated as there are no GAL planets in the region.

Special start recommendation:

- Start at Prism, but do not build your base there.
- Fly to XG-430c (has a BOR deposit), build your base there.

Alternative start: Montem or Danakil (close to the CX)

Benten

Benten is the third largest market and has one of the best planets for making fuel on in the game. However, it's also oversaturated for fuel refiners with many old large producers that make the cost of SF lower than any other region in the game. The demand for fuel refiners is usually low in this region.

Recommended starting planet: Katoa (has a GAL and AMM deposit)

Antares

Antares is the smallest market in the game by a large margin. There are far fewer people here compared to other areas and the market fluctuates significantly. Demand for fuel in this region is the lowest with very volatile prices. It's difficult to recommend starting here as a result.

Special start recommendation:

- Start at Phobos, but do not build your base there.
- Fly to Electronica (has a BOR deposit), build your base there.

Alternative start: Deimos (close to the CX)

What to do after you start

GAL planet (Boucher, Katoa)

Build your two starting buildings, an extractor and a fuel refiner. Extract GAL to refine into SF to sell, while buying the AMM and H off the market. Excess GAL can also be sold off. Start making SF and make FF until you consume all your starting HE3.

Load up one of your ships with all of the SF from the other ship in the cargo bay and send it to the closest CX. Leave your SF consumption very low and if making FTL jumps, set the FTL reactor to 0%. Travel times of 8-24 hours are normal and you are in no rush.

Once your ship arrives at the CX, sell off most of your starting fuel. Only save enough fuel to make a two way trip back to your starting planet and the CX. Using your starting money and the

money made from selling your fuel, you can buy the materials to add a few more buildings as well as consumables to last for several more days.

Recommended buildings to add:

- 1. 1 Settler Habitation (HB2)
- 2. If on Katoa: 1 Collector for AMM (COL)
- 3. 1 Extractor for GAL (EXT)
- 4. 1 Refinery (REF)
- 5. If on Katoa: 1 Collector for AMM (COL)

Use the extractors to make GAL, the Refineries to make SF (using GAL recipe), and the Collectors to make AMM (if on Katoa).

Recommended resources to buy:

- 50 DW
- 52 RAT
- 5 OVE
- 2 EXO (enough to support 40 settlers for 7 days)
- 2 PT (enough to support 40 settlers for 7 days)
- 3 PWO (enough to support 200 pioneers for 7 days)
- 1 REP (enough to support 40 settlers for 7 days)
- 204 H (In addition to your starting resources, this will give 7 days of fuel production on two refineries)
- 68 AMM if not using COL on Katoa (In addition to your starting resources, this will give 7 days of fuel production on two refineries)

Future expansion recommendations:

- You can continue to add more fuel refineries and extractors at a roughly 1:1 ratio.
 Collectors on Katoa should also be added at a 1:1:1 ratio. Exact ratios will vary based on experts, HQ bonuses, and CoGC effects.
- Boucher allows the option of expanding into extracting water with rigs to make Drinking Water at the food processor.
- Both Katoa and Boucher are fertile planets and you can add farmsteads to make crops to make rations, carbon, or overalls with.
- Katoa is a great manufacturing planet, so expanding into a basic materials plant and buying the resources to supply it is a good option.

BOR planet (XG-430c, Electronica)

Build your two starter buildings, an extractor and a fuel refiner. Extract BOR. Use your fuel refinery to refine your starting resources.

Load up one of your ships with all of the SF from the other ship in the cargo bay and send it to the closest CX. Leave your SF consumption very low and if making FTL jumps, set the FTL reactor to 0%. Travel times of 8-24 hours are normal and you are in no rush.

Once your ship arrives at the CX, sell off most of your starting fuel. Only save enough fuel to make a two way trip back to your starting planet and the CX. Using your starting money and the money made from selling your fuel, you can buy the materials to add a few more buildings as well as consumables to last for several more days.

The chemical plant is a very important building to buy the materials for, it will be used to turn the BOR you extract into NAB, which can then be made into SF at your refineries. You may not get all the settlers you need initially, so the chemical plant may run slow for the first few days/weeks. Every week, a population report will occur and you'll get more settlers.

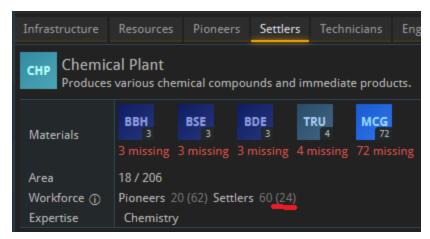
Recommended buildings to add:

- 1. 1 Settler Habitation (HB2)
- 2. 1 chemical plant
- 3. 1 Refinery (REF)

Recommended resources to buy:

- 58 DW
- 62 RAT
- 5 OVE
- 3 EXO (enough to support 80 settlers for 7 days)
- 3 PT (enough to support 80 settlers for 7 days)
- 3 PWO (enough to support 200 pioneers for 7 days)
- 2 REP (enough to support 40 settlers for 7 days)
- 21 NA (will last a chemical plant 7 days at full strength making NAB)
- 105 H (will last a chemical plant 7 days at full strength making NAB)
- 32 AMM (will last two refineries 7 days at full strength making SF with NAB)
- If your planet has few settlers, 100 NAB (to supplement chem plant production)

To check if your planet has few settlers, look at the numbers when building a chemical plant:



The number in parenthesis is how many settlers you'll get immediately when building this building. In this case, I would only get 24 settlers and my chem plant will run slower. If you get 10 or less settlers, you should buy some NAB. This is fine, you'll get more settlers every week. You just need to buy some extra inputs for your refineries to keep them running until your chem plant is up to full production efficiency.

Future expansion recommendations:

- At full strength, a chemical plant can supply up to 5 refineries with NAB. You can add more refineries to reach this ratio. Alternatively, you can use excessive chemistry plant production to make other things like Flux for sale. Or you can sell excessive NAB if the price and demand are good.
- One extractor can support ~1.8 chem plants with BOR on XG-430c and ~3.3 plants on Electronica. This is at equal output efficiency, and ignores effects like HQ bonuses and experts.
- As you already have a chemical plant, further expansion into chemistry is a good option.
 Making flux or nutrient solution is always an option at a chemical plant or you can add a polymer plant to make PG with.

Close to CX planet

This is pretty much any planet that's close to its CX. There are no directly applicable resources on the planet to make fuel with.

Build the fuel refinery. Whether or not you should build the extractor depends on the planet you've started on.

- If on Montem/Proxion, Vallis/Phobos, or Deimos, an extractor can be built to extract a raw resource for export. Either limestone, iron ore, or aluminium ore respectively.
- If on Promitor, a rig should be built to extract water.
- On other worlds nearby their CX: Danakil and Umbra, do not build any natural resource extractor.

It is not recommended to attempt to play as a fuel refiner on any other planets if there are no suitable starting resources. You should probably transition to a different industry or liquidate your company and start over with either a different start or a more suitable planet.

As a close to the CX planet, you will be buying the resources necessary to make SF and FF off of the CXs, refine them on your planet, and then sell the SF and FF.

Load up one of your ships with all of the SF from the other ship in the cargo bay and send it to the closest CX. Leave your SF consumption very low and if making FTL jumps, set the FTL reactor to 0%. Travel times of 8-24 hours are normal and you are in no rush.

Once your ship arrives at the CX, sell off most of your starting fuel. Only save enough fuel to make a two way trip back to your starting planet and the CX. Using your starting money and the money made from selling your fuel, you can buy the materials to add a few more buildings as well as consumables to last for several more days.

Other than adding a settler hab and 1-2 more fuel refineries, it is recommended to add buildings that take advantage of large deposits of useful resources available on your starting planet. These include limestone, iron or aluminium ore, and fertility.

Recommended starting resources to buy:

- 48 DW (Will run 2 refineries for 7 days)
- 51 RAT (Will run 2 refineries for 7 days)
- 5 OVE (Will run 2 refineries for 7 days)
- 2 PWO (Will run 2 refineries for 7 days)
- 2 EXO (Will run 2 refineries for 7 days)
- 2 PT (Will run 2 refineries for 7 days)
- 1 REP (Will run 2 refineries for 7 days)
- Some combination of the following:
 - o In the Benten or Hortus regions:
 - 87 AMM (Will run 2 refineries for 7 days making GAL SF)
 - 174 GAL (Will run 2 refineries for 7 days making GAL SF)
 - 261 H (Will run 2 refineries for 7 days making GAL SF)
 - In the Moria or Antares regions:
 - 33 AMM (Will run 2 refineries for 7 days making NAB SF)
 - 165 NAB (Will run 2 refineries for 7 days making NAB SF)
 - Anywhere
 - 174 HE3 (Will run 2 refineries for 7 days making FF)
 - 348 H
- Plus whatever it takes to run any additional buildings you build.

Future expansion recommendations depend entirely on what planet you've decided to start on and will have little to do with the choice to begin the game as a fuel refiner. There's little that

could be done with the fuel refiner start other than to add chemical plants to make your own NAB if you're in the Moria or Antares regions.

Frontier start

I do not recommend starting out in the frontier unless you've already played the game for at least two weeks.

It will take 4 days to fly to the Hubur region from Moria.

If you would like to start in frontier space, Rhazes in the Hubur region is my recommendation. It is similar to Katoa, a GAL planet start, but with better deposits. Rhazes is very suitable to expand into chemical plants afterwards thanks to the large deposit of BRM on the planet that your GAL extractors can pull from. There is however, very little demand for SF and FF in this region compared to even Antares, so you probably shouldn't run more than one refinery at the most.

Alternatively, you can start on TD-298b, a BOR planet. This is a weaker start, but still a valid one where you can produce a significant amount of NAB for sale and use your extractors to pull TCO for sale as well. Again, don't run more than one refinery.

If you do want to start in the Hubur region, you should start nearby the Moria CX (on planet Danakil) and fly to the CX immediately to buy additional resources and sell your excess SF. You can fly straight to Rhazes from the CX with 300 FF in your ships. Make sure you bring an extra 100 FF in the cargo bays for each of your ships for them to reach the Hubur CX after that. If flying to TD-298b, you'll need to stop at a planet along the way and move fuel from your cargo bays to your ship's fuel tanks.